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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,137	07/18/2003	Jeffrey A. Wilmer	K0476-700710	5203

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EXAMINER

SOOHOO, TONY GLEN

ART UNIT	PAPER NUMBER
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1723

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/623,137

Applicant(s)

WILMER ET AL.

Examiner

Tony G. Soohoo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/17/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 16-19 and 23-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 16-19 and 23-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-10 are rejected under 35 U.S.C. 103(a) as obvious over Taguchi et al 5476320.

The Taguchi (et al) reference discloses a method involving utilizing a blend chamber 11, 3, 6, 7, 8 with a 1st inlet 5, and 2nd inlet 6 and a recirculation line at 8 with a means to analyze the amount of the TMAH (2nd component) and to adjust the rate via the valve as controlled by the controller 10. Note that the device a has a means including a pump as schematically shown in drawing 1, 8, to provide a selective output to 9 for use with a tool or any other device. Note that the controller provides adjustments to the condition of the mixture when the concentration is not of the desired point.

The Taguchi reference discloses all of the recited subject matter as defined within the scope of the claims with the exception that the Taguchi reference does not state the order in which the fluids from the lines 4,6 or 5,7 is added. It has been held that changes in sequence of adding ingredients is prima facie obvious in the absence of

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new or unexpected results. See MPEP 2144.04 IV (C.) Changes in Sequence of Adding Ingredients

Ex parte Rubin , 128 USPQ 440 (Bd. App. 1959) (Prior art reference disclosing a process of making a laminated sheet wherein a base sheet is first coated with a metallic film and thereafter impregnated with a thermosetting material was held to render prima facie obvious claims directed to a process of making a laminated sheet by reversing the order of the prior art process steps.). See also In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) (selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results); In re Gibson, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.)

Thus, Absence of any unexpected result to the manner in which the materials are blended, it is deemed that it would have been obvious to one of ordinary skill in the art to modify the steps so that the 2nd material is added in a subsequent manner into the blend chamber so long as both materials are dispensed into the blend chamber to be blended and that a final blended mixture of the 1st and 2nd materials are contained in the blend chamber.

3. Claims 1-6, 11-12, and 16-19 and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi et al 5476320 in view of Wilmer et al 2002/0048213.

The reference Taguchi et al 5476320 (Taguchi) teaches a controller feed system and mixing tank 1 having feed source lines with a respective valves 5, 4 which is controlled by a controller 10. The controller 10 is further reactive to a sensor 8 located in a recirculation line (see right hand side of the figures having an inlet line from the bottom of the tank to and an outlet line feeding back into the top mixing tank 1 via a

pump) and an outlet line located between the left hand side pump and the outlet to the tank 9.

The Taguchi et al reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of having a mixture drain port and a controller which may respond to dispense part of the mixture should the sensor control signal detects that the material in the mixture is greater than the desired concentration.

The reference to Wilmer et al 2002/0048213 (Wilmer) teaches on paragraph [0080] that in a mixing device or holding vessel, a drain or a disposal system may be utilized to dispose any unacceptable or unneeded blend of material during the blend process. With regards to sensing and using a conductivity sensor, the Wilmer reference teaches column 14, line 55-56 (in the U.S. patent) that the sensor is a sensor to sense the blended process material is acceptable. Whereby a conductivity of a mixture is an known manner to evaluate a mixture, it is deemed that it would have been obvious to one of ordinary skill in the art to without undue experimentation to utilize a conductivity sensor in order to more accurately measure the material mixture conductivity of a respective intended use in pH sensitive mixtures.

Accordingly in view of the teaching by the Wilmer reference, it is deemed that it would have been obvious to one of ordinary skill in the art to provide for the device and method of Taguchi et al with a drain and substitute the density sensor with a conductivity sensor so that the material mixture concentration measured in a more precise manner, and upon any unacceptable concentration, one may easily dispense the unwanted and unacceptable mixture.

With regards to claims 18-19, it is noted that the signal provided by the controller may be divided in any sequential number of discrete time periods, any number of readings of state of concentration, any number of corresponding signals. Also note that in the operation of the device and method as proposed, the flow of material would be interrupted once the proper concentration as the concentration fluctuates near the desired concentration of the specification of the mixture.

Response to Arguments

4. Applicant's arguments filed 11/17/2006 have been fully considered but they are not persuasive.

Applicant has amended new language, not previously presented into newly amended claims 7-12,18-19 and 30, and claims 23-28. Applicant's arguments with respect to claims 7-10 and 23-30 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues with regards to claims 1-6, and 17-17 and 29, that the claims distinguish whereby the combination of Taguchi does not disclose or suggest a means for "draining a portion of an out of specification mixture upon determination that the detected concentration of the 2nd material is out of specification, page 8 or the remarks. Applicant argues that there is no motivation to modify the Taguchi device with a drain of Wilmer. Applicant argues since Wilmer is a continuous process, in contrast to the alleged batch process of Taguchi, such a motivation would obviate the batch method of Taguchi.

In response, the proposed addition of the structure and method step as evidenced by the Wilmer reference is cited as shown that it is old and will known to provide for a mixing system with a drain to the mixing system so that when the mixture is not of the desired quality or content it may be drained out of the system. It further shows and discusses an operation whereby it further provides a step of dumping out the mixture when the mixture is not of the standard that is desired. In common sense terms, a person having ordinary skill in the art would understand that "if your mixture wasn't what you wanted, you may dump the unwanted mixture out by using a drain port in the system". Furthermore, the instant claims do not require or limit the structure nor method in a continuous or batch step. Accordingly, such issues and discussion to such a dumping of the system in a batch or continuous operational device is immaterial to the instant claims.

With regards to the order in which the materials are added to the blend chamber, with regards to the apparatus claims, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). "[A]pparatus claims cover what a device is, not what a device does" (emphasis in original) *Hewlett-Packard v. Bausch & Lomb Inc.* 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). With regards to the method claims, as discussed above, It has been held that changes in sequence of adding ingredients is prima facie obvious in the absence of new or unexpected results. See MPEP 2144.04 IV (C.) Changes in Sequence of Adding Ingredients. Absence of

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any unexpected result to the manner in which the materials are blended, it is deemed that it would have been obvious to one of ordinary skill in the art to modify the steps so that the 2nd material is added in a subsequent manner into the blend chamber so long as both materials are dispensed into the blend chamber to be blended.

Conclusion

5. The prior art made of record PREVIOUSLY MADE OF RECORD and not relied upon is considered pertinent to applicant's disclosure. Suzuki et al 5800056 is pointed out as another example of the state of common knowledge of the art whereby it is known to use a **drain port** V13 from a mixing chamber in addition to an outlet V12. Also, the previously cited Conoby et al 5516423 reference also teaches a recirculation line 70, 73 with recirculation pump 72 for recirculation of fluid back into the tank chamber 12, column 7, lines 62-68 through column 8 line 1, and a pH sensor 22 in the tank which may indicate conductivity to sense the mixture to send a signal output 23 a controller 30 to activate the feed of at least comprising the 2nd material to achieve a desired pH which is an indicator of the amount of concentration of the second material in the mixture, col. 5, line 23-27, and column 5 line 51-67.

6. Applicant has amend language to independent claim 7 which presents issues to the order in which the 2nd material is provided in relation ship of the provision of the 1st material into the blend chamber. This has necessitated a new grounds of rejection to those claims. Applicant has amended language to independent claim 23 which presents a combination of elements not previously presented in the chain of claims of

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parent claim 23 which has necessitated a new grounds of rejection with regards to those claims.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G. Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 8AM-5PM, Tue-Fri.

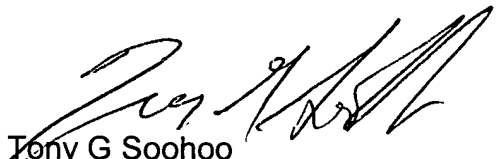
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Tony G Soohoo
Primary Examiner
Art Unit 1723